Market Guide for Digital Banking Platforms

Published 14 September 2020 - ID G00722580 - 33 min read

By Analysts Ali Merji, Jeff Casey

Initiatives: Financial Services Digital Business Strategy and Innovation

The promise of transformation, expanding customer expectations and the need for optimization make digital banking platform adoption an urgent necessity for banks. This guide will help CIOs identify capabilities and vendors best-suited to their strategic needs within an evolving market.

Overview

Key Findings

- Banks continue to invest in fragmented applications. As a result, they cannot meet the customer and employee expectation of a seamless and consistent experience across applications, especially for new modalities like immersive and conversational.

- A robust digital banking platform (DBP) can enable new engagement models with digital ecosystems. This leads to entirely new line-of-business revenue streams, such as identity, custody and insight, and other basic banking capabilities through APIs.

- A great DBP design requires front-end and back-end design, architecture patterns and technologies that work together to provide a composable, adaptive, intelligent and enhanced experience.

- Creating a DBP involves architecting various foundational components across different delivery channels and development environments, and to diverse stakeholders. The market lacks consistency around what composes the key capabilities of a DBP.

Recommendations

Banking CIOs responsible for delivering financial services digital business strategy and innovation:

- Ensure that any DBP meets your bank’s specific needs by identifying the primary drivers for the bank’s digital banking strategy before identifying and evaluating vendors.

- Deliver a broader portfolio of digital products faster and more efficiently by enabling fusion teams (business and IT in collaborative development) to build and manage solutions on a single platform.
Market Definition

The digital banking platform market consists of capabilities that enable financial services providers to orchestrate financial product and service delivery within a seamless, consistent experience by combining front-end development tools, common platform services and back-end business services. Capabilities are delivered via a unified platform that has loosely coupled front- and back-end architectures built to enable composable experiences, adaptive intelligence, ecosystems and product creation (see “Future of Applications: Delivering the Composable Enterprise”).

Building such a platform typically involves a variety of technologies, but for banking, industry solutions are emerging that bring together the required technology components in an industry-specific platform solution.

Market Description

The traditional product and service silos that exist within banking institutions have been slowly eroded over the past decade, as business leaders grapple with how to leverage emerging technology that enables a customer-centric experience across the entire banking relationship. In the past, banks have extended the core banking system’s capabilities by incrementally implementing independent solutions. As more solutions were bolted on to existing layers, the ability to create synergies by sharing data, analytics or capabilities has almost become an impossibility.

Across all financial services segments, business leaders are attempting to extract and combine value from traditional and emerging operating models simultaneously. Business leaders primarily aim digital channel investments at improving customer experience. They are also seeking to optimize the impact of digital channel investments by integrating digital capabilities into existing customer relationships, while providing personalization within digital interactions. 1 A successful end-to-end digital banking platform enables banks to leverage a broader set of transaction types, new products and engagement models. Moreover, it can create new revenue opportunities, reduce operating costs and enable banking transformation that stretches beyond just delivery channel transformation.

CIOs are being tasked with assembling the necessary technology components that enable these transformational capabilities, as well as create a sustainable foundation that allows for transformation at scale and at an ever-increasing pace. Unfortunately, the market suffers from a

- Replace existing, less productive development tools and frameworks by using platform capabilities within a DBP as you rearchitect or replatform applications.
- Expedite alignment of development practices and technologies across the bank by using composable back-end services and APIs, while optimizing for a multiexperience front-end strategy.
lack of consistency about what constitutes key functional DBP components, creating a fragmented vendor landscape. Some solutions have emerged recently in response to, or from the creation of, challenger banks. Other solutions have evolved from more-mature fintech providers and the consolidation of channel-specific solutions and functional capabilities constructed over time.

To address this ambiguity, Gartner has created a DBP model that outlines a set of design principles, key architectural building blocks and specific functional capabilities (see Figure 1). Our model enables banks to compose, deliver and manage contextualized digital experiences (see “Key Design Principles and Building Blocks for a Robust Digital Banking Platform”).

![Figure 1: Digital Banking Platform Model](image)

At the center of Gartner's DBP model is a portfolio of capabilities that includes or orchestrates front-end development tools, common platform services and back-end business services. Capabilities are delivered via a unified platform that has loosely coupled front- and back-end architectures built to enable rapid, scalable development of seamless, targeted and ambient experiences across devices, modalities and touchpoints.

Building such a platform typically involves a variety of technologies, but for banking, industry platforms are emerging that bring together required technologies in a platform solution. In this research, we cover the evolving market of solutions that bring together functional capabilities and technology components to create industry-specific digital banking platforms.

### Market Direction
The DBP market is poised for continued growth, as the proliferation of customer engagement opportunities both inside and outside traditional bank boundaries has reinforced customers’ expectations of personalized, seamless and effortless financial services experiences. According to the 2019 Gartner Customer Experience Survey, 62% of consumers comparing financial services experiences with the experiences provided by non-financial-services providers (such as Apple Pay, Amazon and Netflix) think the experience provided by banks should be as good. Another 29% expect that financial services experiences should be better than those of other brands.

To address these evolving consumer expectations and the associated business opportunities they create, the DBP market has evolved to address three primary use cases:

- New market entrants compete directly with banks via challenger or neobank offerings, in addition to the digital-only offerings from incumbent banks.
- Incumbent banks are trying to replace legacy channel solutions. Most DBP players are finding success with incumbent banks as they replace a specific channel and then expand the platform’s value proposition over time.
- Incumbent banks try to generate revenue by extending banking capabilities (often under the bank’s existing license) to third parties through banking as a service (BaaS) offerings.

Across all three use cases, DBP providers may offer an end-to-end solution that includes the user experience and business functionality up to, and in some cases including, some abstraction of core banking services. Digital banking platforms are typically consumed as white-label solutions in the challenger bank or BaaS use cases. These buyers look to exert greater control of the customer experience, while leveraging the platform’s APIs and underlying capabilities.

COVID-19 has accelerated investment in customer experience technology. Gartner’s Pulse Survey shows customer experience technology as receiving the second highest increase in technology spend after remote-work-supporting technology. Thirty-nine percent of surveyed respondents have significantly increased, and 30% expect to somewhat increase, investment in customer experience technologies as a result of COVID-19.

Because of COVID-19, the market will see an acceleration of modernization initiatives within banks, as legacy solutions no longer meet customer needs or provide the adaptability to respond to changes in customer behaviors. Sustained net interest margin compression and uncertainty will drive organizations to deliver new value propositions and ecosystem participation.

Market Analysis

Gartner conducted a targeted vendor survey to analyze the evolution and maturity of DBP capabilities for this Market Guide. The survey included 32 participant vendors that we think broadly represent the global vendor landscape. This is not meant to be a comprehensive list. So we encourage you to seek out region-specific vendors that may be well-suited to unique regional
needs, but may have been excluded due to logistical issues. Key findings from the survey are as follows:

1. Many multichannel solution providers continue to move toward a DBP. More than 81% of the surveyed vendors have built or added new capability aligning to a platform approach. These providers have constructed product roadmaps that can meet most banks’ incremental movement toward transformation, while also providing a minimum viable product required by banks seeking out the specific benefits offered through a DBP.

2. Across the surveyed providers, DBP solutions consistently provide support for multiple bank customer segments. A significant majority of DBP vendors serve retail banks, small and midsize businesses (SMBs), and corporate banks (more than 90%). Wealth management is supported by only two-thirds of respondents. Brokerages remain the least supported constituency, supported by only one-third of the vendors surveyed. More variability existed across platforms when we evaluated functionality designed to serve internal bank employees.

3. SaaS deployment is gaining market share, with 75% of surveyed providers supporting a SaaS-based deployment model. In general, one of the primary benefits articulated by vendors, was the ability to quickly deploy the DBP solution itself, as well as the additional products and services made possible by the DBP. A typical implementation timeline is six to 12 months from contract execution to production.

4. Ability to integrate with prominent core banking applications is an important differentiator. Nine solutions surveyed out of 32 are not core-agnostic.

5. Many vendors support a modern technology stack, based on cloud-native, microservices architecture, with support for an in-memory data store for analytics. The stack includes the three architectural building blocks — that is, experience rendering layer, platform layer (including composable business services) and core banking layer. (See details on each vendor in the vendor profiles later in the document. Also, see Note 1 for more information about representative vendor selection.)

## Representative Vendors

### Market Introduction

Table 1 shows representative vendors for digital banking platforms.

<table>
<thead>
<tr>
<th>Vendor Name</th>
<th>Product Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apiture</td>
<td>Apiture Open</td>
</tr>
<tr>
<td>Company</td>
<td>Description</td>
</tr>
<tr>
<td>------------------------------</td>
<td>-------------------------------------------------------------</td>
</tr>
<tr>
<td>Avaloq</td>
<td>Avaloq</td>
</tr>
<tr>
<td>Backbase</td>
<td>Backbase Engagement Banking Platform</td>
</tr>
<tr>
<td>Banking Software Company (BSC)</td>
<td>Digital Bank OS</td>
</tr>
<tr>
<td>CoCoNet</td>
<td>MULTIVERSA FIP</td>
</tr>
<tr>
<td>ebankIT</td>
<td>ebankIT Platform</td>
</tr>
<tr>
<td>EdgeVerve Systems</td>
<td>Finacle digital banking platform</td>
</tr>
<tr>
<td>Epiphany</td>
<td>Epiphany ONE</td>
</tr>
<tr>
<td>Finastra</td>
<td>Fusion Essence digital engagement hub</td>
</tr>
<tr>
<td>Finastra</td>
<td>Fusion Essence digital engagement hub</td>
</tr>
<tr>
<td>FIS</td>
<td>FIS Modern Banking Platform</td>
</tr>
<tr>
<td>i-exceed technology solutions</td>
<td>Appzillon Digital Banking Solutions</td>
</tr>
<tr>
<td>Intellect Design Arena</td>
<td>Contextual Banking Experience (CBX)</td>
</tr>
<tr>
<td>nCino</td>
<td>nCino Bank Operating System</td>
</tr>
<tr>
<td>NCR</td>
<td>D3 Digital Banking Platform</td>
</tr>
<tr>
<td>NETinfo</td>
<td>NETinfo Digital Banking Platform</td>
</tr>
<tr>
<td>NYMBUS</td>
<td>SmartEcosystem digital banking platform</td>
</tr>
<tr>
<td>Oracle</td>
<td>Oracle FLEXCUBE Universal Banking</td>
</tr>
<tr>
<td>Oracle</td>
<td>Oracle Banking Platform</td>
</tr>
<tr>
<td>Q2</td>
<td>Q2 Digital Banking Platform</td>
</tr>
<tr>
<td>SAP</td>
<td>SAP digital banking platform</td>
</tr>
</tbody>
</table>
Table 2 shows vendors’ regional presence based on current customer deployments.

**Table 2: Vendors’ Regional Presence Based on Current Customer Deployments**

<table>
<thead>
<tr>
<th>Product Name</th>
<th>North America</th>
<th>Latin America</th>
<th>Western Europe</th>
<th>Eastern Europe</th>
<th>Asia/Pacific</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apiture</td>
<td>Apiture Open</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Avaloq</td>
<td>Avaloq</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Backbase</td>
<td>Backbase</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BSC</td>
<td>Digital Bank OS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CoCoNet</td>
<td>MULTIVERSA FIP</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Gartner
<table>
<thead>
<tr>
<th>Company</th>
<th>Platform/Feature</th>
<th>Score</th>
<th>Score</th>
<th>Score</th>
<th>Score</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>ebankIT</td>
<td>ebankIT Platform</td>
<td>[]</td>
<td>[]</td>
<td>[]</td>
<td>[]</td>
<td>[]</td>
</tr>
<tr>
<td>EdgeVerve Systems</td>
<td>Finacle digital banking platform</td>
<td>NR</td>
<td>NR</td>
<td>NR</td>
<td>NR</td>
<td>NR</td>
</tr>
<tr>
<td>Epiphany</td>
<td>Epiphany ONE</td>
<td>[]</td>
<td>[]</td>
<td>[]</td>
<td>[]</td>
<td>[]</td>
</tr>
<tr>
<td>Finastra</td>
<td>Fusion Essence digital engagement hub</td>
<td>[]</td>
<td>[]</td>
<td>[]</td>
<td>[]</td>
<td>[]</td>
</tr>
<tr>
<td>FIS</td>
<td>FIS Modern Banking Platform</td>
<td>[]</td>
<td>[]</td>
<td>[]</td>
<td>[]</td>
<td>[]</td>
</tr>
<tr>
<td>i-exceed technology</td>
<td>Appzillon Digital Banking Solutions</td>
<td>[]</td>
<td>[]</td>
<td>[]</td>
<td>[]</td>
<td>[]</td>
</tr>
<tr>
<td>Intellect Design Arena</td>
<td>Contextual Banking Experience (CBX)</td>
<td>[]</td>
<td>[]</td>
<td>[]</td>
<td>[]</td>
<td>[]</td>
</tr>
<tr>
<td>nCino</td>
<td>nCino Bank Operating System</td>
<td>[]</td>
<td>[]</td>
<td>[]</td>
<td>[]</td>
<td>[]</td>
</tr>
<tr>
<td>NCR</td>
<td>D3 Digital Banking Platform</td>
<td>[]</td>
<td>[]</td>
<td>[]</td>
<td>[]</td>
<td>[]</td>
</tr>
<tr>
<td>NETinfo</td>
<td>NETinfo Digital Banking Platform</td>
<td>[]</td>
<td>[]</td>
<td>[]</td>
<td>[]</td>
<td>[]</td>
</tr>
<tr>
<td>NYMBUS</td>
<td>SmartEcosystem digital banking platform</td>
<td>[]</td>
<td>[]</td>
<td>[]</td>
<td>[]</td>
<td>[]</td>
</tr>
<tr>
<td>Vendor</td>
<td>Product Description</td>
<td>Q2</td>
<td>Q2</td>
<td>Q2</td>
<td>Q2</td>
<td>Q2</td>
</tr>
<tr>
<td>------------------------</td>
<td>----------------------------------------------</td>
<td>----</td>
<td>----</td>
<td>----</td>
<td>----</td>
<td>----</td>
</tr>
<tr>
<td>Oracle</td>
<td>Oracle FLEXCUBE Universal Banking</td>
<td>NR</td>
<td>NR</td>
<td>NR</td>
<td>NR</td>
<td>NR</td>
</tr>
<tr>
<td>Oracle</td>
<td>Oracle Banking Platform</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Q2</td>
<td>Q2 Digital Banking Platform</td>
<td>◼</td>
<td>◼</td>
<td>◼</td>
<td>◼</td>
<td>◼</td>
</tr>
<tr>
<td>SAP</td>
<td>SAP digital banking platform</td>
<td>NR</td>
<td>NR</td>
<td>NR</td>
<td>NR</td>
<td>NR</td>
</tr>
<tr>
<td>Sopra Banking Software</td>
<td>Sopra Banking Platform</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>TCS</td>
<td>TCS BaNCS digital banking platform</td>
<td>NR</td>
<td>NR</td>
<td>NR</td>
<td>NR</td>
<td>NR</td>
</tr>
<tr>
<td>Technisys</td>
<td>Cyberbank Digital digital banking platform</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Temenos</td>
<td>Infinity digital banking solution</td>
<td>NR</td>
<td>NR</td>
<td>NR</td>
<td>NR</td>
<td>NR</td>
</tr>
<tr>
<td>ti&amp;m</td>
<td>ti&amp;m digital banking platform</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>TODO1</td>
<td>TODO1 digital banking platform</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>
Vendor Profiles

Apiture

Apiture, headquartered in the U.S., offers the Apiture Open digital banking platform. Apiture has two deployments, both in North America. The Apiture Open solution targets challenger banks or incumbent financial institutions looking for a platform that extends into the core banking system. It supports digital account opening and account servicing for both consumer and business accounts.

The solution is delivered as a SaaS offering, with a typical implementation timeline of one to three months.

Apiture Open is an API-first, cloud-native solution built on top of the Amazon Web Services (AWS) platform. Apiture Open’s white-label solutions are built on top of Apiture’s API layer. Banks are able to take advantage of Apiture’s UI for out-of-the-box functionality or leverage the API layer for building custom user experiences.

Avaloq

Avaloq, headquartered in Switzerland, offers modular digital banking platform solutions. Avaloq has 139 customer deployments: 102 in Western Europe, 27 in APAC, six in North America, one in Latin America, and three in the Middle East and Africa. Avaloq targets banks of all types across the asset size spectrum, with a notable focus on wealth management and investment firms.

The solutions can be deployed on-premises or leveraging a SaaS model, with a typical implementation timeline of six to 12 months. The solutions are modular and core-agnostic. Through Avaloq.one Ecosystem, clients have access to an ecosystem of more than 100
preintegrated fintech partners. Avaloq also provides a business process as a service (BPaaS) offering that is leveraged by banks across Western Europe and Asia/Pacific.

**Backbase**

Backbase, headquartered in the Netherlands, offers the Backbase Engagement Banking Platform. Backbase has 316 customer deployments: 203 in North America, 61 in Western Europe, 26 in Eastern Europe, 16 in Asia/Pacific, and 10 in the Middle East and Africa. Backbase lets financial institutions adopt, extend or build on top of the Engagement Banking Platform.

Backbase capabilities are built in Java and are containerized through Kubernetes, allowing the solution to be deployed in the cloud, on-premises or SaaS, with a typical implementation timeline of three to six months. The Engagement Banking Platform is built on a microservices architecture. Backbase follows the OpenAPI specification and offers developer capabilities for firms seeking to build custom experiences. All APIs are compatible with open banking in the U.K. and the EU’s revised Payment Services Directive (PSD2), including consent management and strong customer authentication (SCA).

**Banking Software Company (BSC)**

BSC, headquartered in the Czech Republic, offers the Digital Bank OS. BSC currently has 26 Digital Bank OS customer deployments globally, with nine deployments in North America, eight in Western Europe, five in Eastern Europe and four in Asia/Pacific. BSC’s Digital Bank OS offers out-of-the-box product solutions for retail, corporate, investment and wealth management segments.

BSC targets midtier to large banks looking for a cost-effective, low-risk implementation without limitations for future digital innovations. The solution can be deployed on-premises or in the cloud, with a typical implementation timeline of six to 12 months.

The Digital Bank OS is built on a decoupled architecture with microservices components. The solution is cloud-native and can run in on-premises, private cloud or public cloud infrastructures. The solution employs a configuration as code with entities, their properties and corresponding API defined and generated from the configuration data, as well as low-code development capabilities.

**CoCoNet**

CoCoNet, headquartered in Germany, offers the MULTIVERSA FIP digital experience and integration platform. CoCoNet has five bank customer deployments in Western Europe. The solution is designed to fulfill the requirements of banks’ corporate and business customers specifically. In July 2020, CoCoNet announced the addition of Customer Lifecycle Management Platform capabilities that enable banks to improve the way they manage and serve their corporate customers.

The MULTIVERSA FIP solution can be deployed on-premises or in the cloud, with a typical implementation timeline of six to 12 months. The CoCoNet solution is based on a modular design using Java Spring and Hibernate for the back end, and service implementation and TypeScript on
the front end. APIs are provided as RESTful services, and the solution supports multiple databases such as Oracle Server and Microsoft SQL Server.

**ebankIT**

ebankIT, headquartered in Portugal, offers the ebankIT Platform. ebankIT has 60 customer deployments worldwide: 30 in North America, 16 in Western Europe, 11 in the Middle East and Africa, and three in Eastern Europe. The solution can be deployed on-premises or in the cloud, with a typical implementation timeline of six to 12 months.

The solution is core-agnostic and also offers abstraction and mapping of core data models into the ebankIT Platform through its integration layer. The offering includes a low-code integrated development environment, ebankIT Studio, as well as an online elearning solution, ebankIT Academy, for partners and client training. ebankIT leverages the Microsoft technology stack, including .NET Core (MVC architecture) and Microsoft SQL Server, and native mobile banking development using Kotlin (Android) and Swift (iOS).

**EdgeVerve Systems**

EdgeVerve Systems, headquartered in India, is an Infosys product company that offers the Finacle digital banking platform. Infosys is a global provider with operations in all major geographic regions. EdgeVerve Systems has 531 Finacle deployments globally. EdgeVerve Systems did not provide a regional split of customer numbers due to its internal policy.

Finacle has clients ranging from large incumbent banks and their digital subsidiaries, digital-only banks, banking operations of players from nonbanking industries, and fintechs. The solution can be deployed on-premises or leveraging a SaaS model, with a typical implementation timeline of six to 12 months. More than 21.6% of total deployments are cloud-based. The Finacle solution has a layered, microservices-based, cloud-native architecture.

**Epiphany**

Epiphany, headquartered in Italy, offers the Epiphany ONE digital banking platform. Launched in early 2020, Epiphany has one customer deployment in Western Europe, with initial go-to-market activities focused on the Americas. Epiphany ONE is a modular platform designed around an open collaboration concept: focused on enabling co-creation between banks and external partners to deliver new digital services. Epiphany ONE uses the Banking Industry Architecture Network (BIAN) industry standards and includes a software developer kit (SDK), APIs and an integrated App Store.

The solution can be deployed on-premises or as SaaS, with a typical implementation timeline of one to three months. Epiphany is built on a technology architecture that includes Java, Angular, Go, Kubernetes and Red Hat OpenShift.

**Finastra**
Finastra, headquartered in London is the result of the merger between the former Misys and D+H, a Canadian core banking solution provider. Finastra has regional offices in the U.S., Canada, Singapore, United Arab Emirates (UAE) and the U.K. and localized presence in 34 other countries. Fusion Essence and many other Finastra products are sold in all of them. Fusion Essence is mainly sold to midtier banks, challenger banks and neobanks.

Fusion Essence’s digital engagement hub has 29 deployments: 10 in Western Europe, eight in Eastern Europe, five in APAC, and six in the Middle East and Africa. The region with the largest installation base is Europe, followed by the Middle East, Africa and Asia/Pacific.

Fusion Essence’s digital engagement hub is a microservices-based architecture, with separation of data and UI. It uses Form Modeler (jBPM) for digital UI, is database-agnostic and runs on all open platforms. It uses REST APIs and an event framework for integration with core and other applications. Fusion Essence is delivered on-premises, as well as SaaS, but the majority of its current deployments are on-premises. Fusion Essence digital engagement hub is also offered on Microsoft’s Azure public cloud.

FIS

FIS, headquartered in the U.S., offers the FIS Modern Banking Platform. FIS has eight customer deployments of its Modern Banking Platform: seven in North America and one pending in Western Europe. FIS’s Modern Banking Platform targets a broad set of market players, including incumbent banks, digital banks, neobanks, challenger banks, fintech startups and BaaS providers. The solution can be deployed on-premises or with SaaS, leveraging FIS’s private cloud or Microsoft Azure Cloud, with a typical implementation timeline of 12 to 18 months.

The Modern Banking Platform is a component-based solution constructed around the FIS core banking engine, leveraging open APIs to present as one holistic solution. The solution is designed around modular components that may be utilized as a tightly integrated best-of-suite solution or individually in a best-of-breed environment. The offering includes the FIS Code Connect enterprise API gateway, API management platform and developer portal. The technology architecture includes JDK 7, Java EE 6 and WebSphere 8.5.5 and can be deployed across multiple relational databases.

i-exceed technology solutions

Headquartered in India, i-exceed technology solutions offers the Appzillon Digital Banking Solutions and Appzillon Digital Experience Platform. The company has 80 customer deployments: 53 deployments in Asia/Pacific, 20 in the Middle East and Africa, five in Western Europe, and two deployments in North America. It targets financial institutions looking for the combination of out-of-the-box solutions coupled with low-code development capabilities.

The solution is deployed on-premises, with a typical implementation timeline of three to six months. Appzillon is built on a technology architecture that includes Python, Java, JavaScript and Java EE, and is relational-database-agnostic. It offers a single codebase for multiple channels,
prebuilt integration adapters supporting various protocols, and a visual designer with drag-and-drop functionality.

**Intellect Design Arena**

Intellect Design Arena, headquartered in India, offers the Contextual Banking Experience digital banking platform. Intellect Design Arena has 104 customer deployments: 44 in Asia/Pacific, 41 in the Middle East and Africa, 13 in Western Europe, and six deployments in North America.

Intellect Design Arena targets Tier 1 and midtier banks looking to supplement existing retail and corporate banking capabilities or to add new ones. The CBX digital banking platform is cloud-native, contains more than 90 microservices, offers an SDK and has a typical implementation timeline of six to 12 months.

**nCino**

nCino, headquartered in the U.S., offers the nCino Bank Operating System. nCino has 1,108 customer deployments, with the majority (1,090) in North America, 15 in Western Europe and three in Asia/Pacific. Initially focused on commercial lending, the solution has expanded to combine CRM, origination and onboarding, account opening, and decisioning capabilities across multiple commercial, retail and small business financial products.

The nCino Bank Operating System is built on the Salesforce platform and part of the Salesforce Financial Services Cloud independent software vendor (ISV) ecosystem. The solution leverages a SaaS deployment model with a typical implementation timeline of six to 12 months. nCino's programming languages are Apex and JavaScript. nCino's core AI and machine learning capabilities are delivered through their nCino IQ (nIQ) solutions built on AWS.

**NCR**

NCR, headquartered in the U.S., offers the NCR D3 Digital Banking Platform. NCR has 12 customer deployments on its NCR D3 platform within North America. The solution is targeted toward large banks and can be hosted or deployed on-premises, with a typical implementation timeline of six to 12 months.

The NCR D3 platform supports a tiered architecture in a clustered environment. The components of the platform have been created to function as microservices around domain knowledge and are exposed via RESTful APIs. The web server tier consists of the web server, which hosts the user interface (U.S.). The NCR D3 reference architecture uses React and serves U.S.-related artifacts such as HTML, JavaScript, CSS and other static content currently, but in the near future, it will use CDN for static content. APIs and microservices are written in Java and are based on open API standards. NCR is relational-database-agnostic and uses such databases as MySQL, Amazon Aurora, SQL Server and Oracle Server to store all the data consumed by the D3 platform that is building custom user experiences.
NETinfo, headquartered in Cyprus, offers the NETinfo Digital Banking Platform. NETinfo has 43 customer deployments: 19 in the Middle East and Africa, 13 in Eastern Europe, two in Western Europe, five in Asia/Pacific, and four deployments in North America. NETinfo offers on-premises as well as cloud deployments, with a typical implementation timeline of six to 12 months as reported by the vendor. As an extension to the NETinfo Digital Banking Platform offering, the company also provides solutions for digital onboarding, open banking and a mobile wallet solution, NETinfo Mobile Financial Services (MFS).

The NETinfo Digital Banking Platform solution is a Java application and leverages EJB3 and Java EE technology, enabling it to operate in a variety of hardware platforms, operating systems or database technologies. NETinfo is an open platform exposing all supported functionality through APIs.

**NYMBUS**

NYMBUS, headquartered in the U.S., offers the NYMBUS SmartEcosystem digital banking platform. NYMBUS has 23 customer deployments, all within North America. An extension of the SmartEcosystem, NYMBUS offers a SmartLaunch option, which includes bundled technology, operational support, and full-service digital marketing and integrated CRM solutions designed to enable clients to quickly set up a fully outsourced digital bank.

The SaaS-based solution has a typical implementation timeline of one to three months. The solution leverages the NYMBUS SmartCore, a cloud-based open architecture, API-driven core banking solution, in addition to SmartOnboarding, SmartLoans, SmartServices, SmartMarketing and SmartPayments solutions. In October 2019, NYMBUS licensed NCR’s D3 Digital Banking Platform as part of a strategic partnership.

**Oracle**

Oracle, headquartered in the U.S., offers the Oracle Banking Platform, focused on retail banking, and Oracle FLEXCUBE Universal Banking. The Oracle Banking Platform (OBP) has four customer deployments in Asia/Pacific and one in North America.

The solution includes core banking deposits and loan functions. OBP is a componentized solution designed as a native service-oriented architecture (SOA) platform. The solution can be deployed on-premises and to a platform as a service (PaaS) cloud, with a typical implementation timeline of six to 12 months. The OBP solution is built on a technology architecture that includes Java, REST API, Docker, Kubernetes, Oracle Database, and cloud deployment options for infrastructure as a service (IaaS) and PaaS.

Oracle’s FLEXCUBE solution targets financial services companies in the EMEA, Asia/Pacific and Latin American regions across all tiers of banks. The FLEXCUBE solution is a modular, cloud-native, microservices architecture with API-based integration pattern to connect external systems and applications. The solution supports both servlet container-based and native cloud deployment options.
Oracle’s front end is developed using Oracle JavaScript Extension Toolkit (Oracle JET), which provides a modular open-source toolkit based on modern JavaScript, CSS3 and HTML5 design and development principles. The solution supports various integration methods, such as web services, XML, HTTP, REST, JSON format, IBM MQ, JMS or similar queue technology, public or custom APIs, and flat files.

Q2

Q2, headquartered in the U.S., offers the Q2 Digital Banking Platform. Q2’s solution suite includes digital banking for retail and commercial users, a third-party marketplace, BaaS through open cloud-based APIs, and solutions targeted across the lending life cycle. Q2 has 414 North American customer deployments on the Q2 Digital Banking Platform, and 250 global clients with digital lending solution deployments.

Q2 targets North American banks and credit unions, with clients ranging from $40 million to $110 billion in assets under management, with a focus on a target market within the $5 billion to $20 billion asset range. The solution can be deployed in the cloud or through a SaaS offering, with a typical implementation timeline of six to 12 months.

Q2 is a .NET platform with an industry-standard relational database management system (RDBMS) provided as a SaaS solution. Cutting-edge technical differentiators include open API BaaS, and blockchain for data security (Q2 Trustview powered by ALTR).

SAP

SAP, headquartered in Germany, offers the SAP digital banking platform. The company has operations in 78 different countries across six continents. SAP did not disclose its customer base due to internal policy restrictions.

The SAP DBP is targeted to banks looking for functionality out of the box, with quick implementation times, as well as banks that want to accelerate the development and customization of solutions by leveraging out-of-the-box functionality as a starting point. Certified to run on SAP Cloud Platform, the SAP DBP supports Docker and Kubernetes containers for deployment on other clouds as well (such as Google, AWS and Microsoft Azure). Its open API architecture (more than 850 exposed APIs) supports third-party business services and partner and fintech integration. The platform uses industry-standard technologies (such as OData, REST and OSGi), and the responsive UX design is built on HTML5, providing online, mobile and tablet UX solutions for retail, small and midsize business (SMB), and commercial market segments.

Sopra Banking Software

Sopra Banking Software, headquartered in France, offers the Sopra Banking Platform. Sopra Banking Software has 592 customer deployments, with 408 in Western Europe, 177 in the Middle East and Africa, and seven in Asia/Pacific. Sopra Banking Software targets retail banks globally across all asset tiers, with a specific geographic focus on retail banks within the EMEA region.
Sopra Banking Platform can be deployed on-premises or in the cloud, with a typical implementation timeline of three to six months.

The solution implements an API-first, component- and microservices-based architecture covering key banking functions. The solution is packaged in Docker containers, deployed automatically through a fully automated continuous integration/continuous delivery pipeline and orchestrated via Kubernetes. Istio is the service mesh used, and microservices use MongoDB and Redis for data persistence. Kafka is used for asynchronous communication and data streaming to the data lake and to expose REST APIs for synchronous communication.

**Tata Consultancy Services (TCS)**

TCS, headquartered in India, offers the TCS BaNCS digital banking platform. TCS has 75 customer deployments globally. TCS does not release geography-specific statistics. However, its customer base primarily includes retail banks in the small to midsize segment. It also has several large clients, worldwide, providing retail, business and corporate banking with its digital banking solution. The DBP can be deployed on-premises or SaaS, with a typical implementation timeline of six to 12 months.

The digital layer includes Node.js, Angular and Java EE. The digital layer also includes orchestration middleware in Java, jQuery and Hibernate, and design patterns such as Model-View-Controller (MVC). Functional components are in the form of business services (transaction processing services and reference data services) built primarily using Java EE and Spring Framework. Spring beans or web services are deployed leveraging Spring Boot or application servers like Oracle WebLogic Server, IBM WebSphere and JBoss.

TCS BaNCS DBP solution is available on cloud in a SaaS-like offer. The above components can be deployed traditionally or increasingly on containers, such as Docker, using Kubernetes for orchestration, and on platforms like Red Hat OpenShift.

**Technisys**

Technisys, headquartered in the U.S., offers the Cyberbank Digital DBP. Technisys has 53 customer deployments, with 50 in Latin America and the remaining three in North America. Technisys focuses on Tier 2 and Tier 3 banks, as well as the emerging challenger bank space. The solution can be deployed on-premises or on cloud (Azure, AWS, OpenShift, IBM LinuxOne and Google Cloud), with a typical implementation timeline of three to six months.

The Cyberbank Digital platform is an API-centric, microservices-based DBP that includes a core banking engine, orchestration, and customer journey modeling and digital engagement layers. The technology stack includes React, REST-based APIs and a business process management (BPM) engine.

**Temenos**
Temenos, headquartered in Switzerland, offers the Temenos Infinity digital banking solution for retail, business, corporate and wealth segments. Temenos Infinity provides secure digital banking servicing solutions for native apps and responsive web, supporting open banking, solutions for onboarding and advanced data analytics capabilities. Temenos did not disclose its customer base due to internal policy restrictions.

The solution is core-agnostic and can be deployed on-premises or leveraging a SaaS model, with a typical implementation timeline of six to 12 months. This timeline is shorter for clients who opt for an out-of-the-box approach. Temenos Infinity is built on a microservices architecture, provided as independently upgradable distribution services. Infinity provides Experience APIs used by the channel solutions to integrate to microservices, core banking or other back-office data sources. Fabric is the underlying technical integration solution.

**ti&m**

Headquartered in Switzerland, ti&m offers the ti&m DBP. The company has more than 50 customer deployments, with the majority, in Western Europe and one in Asia/Pacific. It targets midtier banks with a solution that can be deployed on-premises, SaaS or private cloud, with a typical implementation timeline of six to 12 months (as reported by the vendor).

It is built on a microservices architecture leveraging the following technologies: Java (Spring or Spring Boot), Kotlin, React, Python for machine learning, Kafka, Oracle or PostgreSQL.

**TODO1**

TODO1, headquartered in the U.S., offers the TODO1 DBP. TODO1 has 12 customer deployments: 11 in Latin America and one in North America. The solution targets financial institutions looking for a business value digital bank offering, with a strong user adoption and an emphasis on minimizing fraud risk. The solution employs a SaaS deployment model, with a typical implementation timeline of six to 12 months.

TODO1 DBP is built on a technology architecture leveraging Java, JavaScript, Oracle, DataPower, Microsoft SQL Server, low-code technology, serverless architecture, containers, cloud deployment and infrastructure as code (by ALTR) for data security.

**Ubanquity**

Ubanquity, headquartered in Ireland, offers the Ubanquity Open Digital Banking Platform. Ubanquity has six customer deployments: five in the Middle East and Africa and one in Eastern Europe. The solution can be deployed on-premises, in the cloud or as a SaaS model, with a typical implementation timeline of three to six months.

Ubanquity is a cloud-native solution built on a composable modern SOA that leverages a microservices stack. Built around the Open Digital Banking Platform, Ubanquity offers the Financial Innovation Cloud that provides a back-end “innovation sandbox,” and a front-end “fintech marketplace.”
Market Recommendations

CIOs delivering financial services digital business strategy and innovation:

- During vendor selection, prioritize the depth and breadth of functional capabilities in the area most aligned to your specific use case. Some vendors provide strong out-of-the-box channel functionality. Some excel in facilitating external collaboration, building ecosystems, or enabling the creation of new products and services, while others are focused on revenue generation through the extension of banking services to third parties.

- Vendors’ DBP offerings are often positioned as comprehensive solutions that can accelerate modernization and replace legacy technologies. However, platforms still require significant configuration and integration to meet specific regulatory, business and technical requirements of complex banking operations. As a result, carefully evaluate implementation challenges upfront, and take steps accordingly to mitigate project risks.

Acronym Key and Glossary Terms

| Digital banking multichannel solutions | Digital banking multichannel solutions are commonly deployed as an overlay to digital banking platforms. Multichannel solutions share a common business process layer and APIs, focusing on customer experience to provide a consistent workflow. |

Evidence

1 In late 2019, 307 financial services executives responded to four Gartner surveys deployed to four business lines of the industry: commercial banking, wealth management, retail banking and financial services operations. See “Industrywide Priorities for Financial Services Executives: Insights for Commercial Banking Leaders.”

2 The 2020 Gartner Financial Services Customer Experience Survey was conducted online from December 2019 to January 2020. The 5,437 respondents were from Australia, Canada, Singapore, the U.K. and the U.S., and held at least one banking product and interacted at least once with their banking providers in the past 12 months. The study was developed collaboratively by Gartner analysts and the Research Data and Analytics team.

3 The Gartner Pulse Survey polled 54 financial services CIOs and IT leaders. See “Survey Analysis: How Financial Services CIOs Are Reprioritizing Their 2020 Plans.”

4 Gartner conducted an online survey in 2Q20, with 32 vendors participating in the Market Guide version of the survey. Three surveyed vendors, Fiserv, Finnova and VeriPark, could not be included in the report due to the reasons mentioned in Note 1.

Note 1
Representative Vendor Selection

Gartner estimates that there are at least 50 vendors globally in this market. Thirty-two vendors participated in this Market Guide version of the survey. This is not meant to be a comprehensive list. So we encourage you to seek out region-specific vendors that may be well-suited to unique regional needs, but may have been excluded due to logistical issues.

To be included in the list, vendors had to meet two requirements:

- Must be able to position the solution as an enabler of new business models, operating models or revenue streams by leveraging a combination of data and analytics, integration capabilities, and ecosystems.

- Must possess composable business functionality combined in a single product offering.

In response to the targeted vendor survey conducted by Gartner, vendors that did not self-identify as a DBP provider were excluded from the Market Guide.

Document Revision History

Market Guide for Digital Banking Platforms - 27 August 2018

Recommended by the Authors

Market Guide for Digital Banking Multichannel Solutions
Current Use of Blockchain for Investment Management and Digital Assets
How Banks Should Prepare for Central Bank Digital Currencies: Early Lessons from China
Adopt a Mesh App and Service Architecture to Power Your Digital Business
Technology Insight for Multiexperience Development Platforms

Recommended For You

Hype Cycle for Open Banking, 2019
Cool Vendors in Banking
Banking Industry Scenarios in 2030 — The Platformist Bank: Leveraging Platforms and Machines
Lessons in Digital Banking Prioritization From Savvy Trailblazers
Industry Vision: Bank CIOs, Identify Your Readiness to Embark on Open Banking